

## OPTICAL COMMUNICATIONS USING HETERODYNE DETECTION

## ABSTRACT OF THE DISCLOSURE

A receiver recovers an information signal from an optical signal which includes at least one tone and at least one sideband of the information signal. The receiver includes a heterodyne detector coupled to a signal extractor. The heterodyne detector mixes the optical signal with an optical local oscillator signal to produce an electrical signal which is a frequency down-shifted version of the optical signal. The signal extractor mixes one of the tones with one of the sidebands in the electrical signal, generating a component, preferably the difference component, which contains the original information signal.